

A Common Sense Approach to Carbon Mitigation Portfolio Assessment

THE ELECTRIC POWER SCORECARD

The US and other countries are pursuing a very broad range of technology options to mitigate potential climate change impacts. Do we run the risk of expending our financial and R&D capital on options that will not be available in a timely manner? The Scorecard is a simple, qualitative approach that can provide guidance for answering this question.

Members of the Founder Societies' Carbon Management Initiative, which spans a range of engineering disciplines, have selected the Scorecard approach as a tool for assessing the merit of various greenhouse gas (GHG) management options. The Founder Societies' Carbon Management Initiative is a collaborative effort formed by five engineering societies (AIChE, AIME, ASCE, ASME, IEEE) – the Founder Societies of the United Engineering Foundation. The Initiative is designed to apply unbiased, interdisciplinary, state-of-the-art engineering expertise to identify practical steps the country can take toward managing greenhouse gas emissions

The objective of the Scorecard approach is to identify options that could be implemented in sufficient quantity to provide a significant impact on GHG reduction in the 2020 and 2050 timeframes. In general, options for 2020 timeframe will be different from those that become important in 2050. The Scorecards developed so far focus on electric power and transportation systems (4-wheel passenger vehicles). This note briefly describes the Electric Power Scorecard and solicits IEEE members to complete the Scorecard.

The nomenclature used in the scorecards is

- **Options:** Technologies and/or other measures that could reduce GHG emissions
- **Attributes:** A set of indicators (metrics) used to “grade” each Option; in combination, they yield a relative (compared to other options in the same scorecard) potential for success in a timely manner.

The Scorecards employ a simple A, B, C, D and E grading system (similar to that used in many schools) for the Attributes. The Electric Power Scorecard rates major types of power sources, including coal, gas, and renewables using several Attributes. The Transportation Scorecard rates various transportation systems, using traditional or new fuel sources and technologies, by the same set of Attributes. The Attributes include items such as technical issues, cost, environmental and risk issues, and timing of significant implementation.

The Scorecard is not a substitute for systems analysis or life cycle assessments. Rather, it provides means to screen promising options using “down-to-earth” engineering, environmental, and socio-political considerations.

A more detailed **Description and Instructions** and the **Electric Power Scorecard Form** can be found on the [Electric Power Scorecard](#) webpage, hosted by AIChE.

Please email the completed Scorecards to carbonmanagement@foundersocieties.org for compilation.

Thank you for your participation in this important endeavor,

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